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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/413,963	10/07/1999	JOHN LYNCH	85160.911CII	2650

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EXAMINER

BRODA, SAMUEL

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 09/26/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/413,963	Applicant(s) LYNCH ET AL.	
	Examiner Samuel Broda	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office Action is in response to Applicants' filing of a Continued Prosecution Application ("CPA") as Paper No. 8 dated 6 July 2001. The CPA was filed in response to a Final Office Action, Paper No. 7 mailed on 8 January 2001. The CPA included no response to a set of prior art rejections made in Paper No. 7; the text of these prior art rejections (with minor edits) is included as part of this Office Action.

Claims 16-38 are pending and have been examined.

Drawings

2. Applicants' formal drawings have been reviewed and approved by the PTO Draftsperson.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.1 Claims 16-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

3.2 Regarding independent claims 16, 26, and 33, claim 16 is directed at "A method for generating a configuration for a system," claim 26 is directed at "A method for generating a

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system configuration,” and claim 33 is directed at “A method for satisfying a constraint in a system configuration.” However, most or all limitations in each method claim are written in “means for” format applicable to apparatus or system claims.

For example, the first element in claim 16 suggests the step of “defining in a computer system . . .” whereas the second element in claim 16 suggests an apparatus having “means for generating a plurality of components . . .”

When each of claims 16, 26, and 33 are considered individually or claims 16-21 and 26-38 are considered as a group, it is unclear whether Applicants intended to submit claims directed at methods or systems.

For the purpose of further claim examination, the phrase “means for” appearing in each method claim limitation will be assumed to denote the phrase “a step of.”

3.3 Regarding claims 22-25, these claims are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the plurality of constraints and the generation of a configuration for the system.

3.4 Dependent claims not specifically described above are rejected based on their dependency to a rejected claim.

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Claim Rejections - 35 U.S.C. § 101

4. The following is a quotation of 35 U.S.C. 101:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.1 Claims 22-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4.2 Regarding independent claim 22, the claim recites “An article of manufacture” with the claim limitations describing non-functional aspects of the article definition. Additionally, the claim lacks a positive recitation that what is claimed is an article having executable computer code that when executed causes a computer to perform the steps described by the claim limitations. As currently written, the article of manufacture appears to consist of non-functional descriptive material; see MPEP Section 2106, subsection IV.B.1(a).

4.3 Dependent claims not specifically described above are rejected based on their dependency to a rejected claim.

Notice - 35 U.S.C. § 112, Sixth Paragraph

5. The following is a quotation of the appropriate paragraph of 35 U.S.C. 112 that forms the basis for the notice under this section made in this Office action:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

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5.1 The language of claims 16-38 indicates Applicants may desire an interpretation of these claims under 35 U.S.C. § 112, sixth paragraph. In order to receive a claim interpretation under 35 U.S.C. § 112, sixth paragraph, Applicants must:

1. show why the claim language properly invokes 35 U.S.C. § 112, sixth paragraph;
2. identify the function;
3. identify the corresponding structure; and
4. amend the Specification, if necessary, to explicitly state what structure corresponds to the recited function with reference to the claimed terms and phrases, provided no new matter is introduced.

See 37 C.F.R. 1.75(d) and MPEP § 2181.

5.2 For the purpose of further examination, each claim listed above will be interpreted as broadly as reasonably possible without regard to 35 U.S.C. § 112, sixth paragraph.

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

...

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6.1 Claims 16, 19-23, 26-27, 30-31, and 33-37 are rejected under 35 USC § 102(b) as being clearly anticipated by Kramer, "Knowledge-based Configuration of Computer Systems Using Hierarchical Partial Choice," IEEE Third International Conference on Tools for Artificial Intelligence, pp. 368-375 (November 1991)(prior art previously supplied to Applicants).

6.2 Regarding claims 16, 19-23, 26-27, 30-31, and 33-37, Kramer teaches:

- a. generating a configuration for a system (page 372 col 1 para 3);
- b. defining a structural model of elements (see Figure 3; page 369 col 1 para 3; page 371 col 2 para 3 through page 372 col 1 para 2);
- c. means for generating plurality of components (see Abstract; page 368 col 2 para 1);
- d. defining structural relationships between base classes (page 369 col 1 para 3 through page 370 col 1);
- e. maintaining the model (page 375 col 1 para 1);
- f. means to establish that the constraints satisfied by at least one component (page 372 col 1 para 2);
- g. determining if another component can satisfy the constraints (page 372 col 2, top of page regarding "backtracking"); and
- h. examining to determine if another port can be used (page 372 col 1 para 2).

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Claim Rejections - 35 U.S.C. § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7.1 Claims 17, 18, 24, 25, 28-29, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kramer, in view of common knowledge regarding product configuration. Kramer teaches a configuration method that is a knowledge-based hierarchical system using constraints to determine if requested components and features can be incorporated into a configuration as in the instant application.

7.2 Regarding claim 17, Kramer fails to teach a bill of material (BOM). Official Notice is taken that the use of BOM's to list parts of an assembly is well known and often used as a means to identify the composition of the assembly and to provide a basis for pricing and packaging the correct items. It would have been obvious to an artisan of ordinary skill in the computer development arts to realize that the final selection of components by the configuration program would be described in a Bill of Materials. The artisan would have been motivated to generate and use a BOM for because of its accepted general usage for these purposes.

7.3 Regarding claim 18, Kramer fails to teach spare parts, failed requests and failed optional requests. Official Notice is taken that the compilation of spare parts lists and failed

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configurations is well known and often used as in order construct a working configuration. It would have been obvious to the artisan of ordinary skill at the time of the invention to note items such as spare parts, failed requests and failed optional requests to indicate that the configuration selected did not completely satisfy all the constraints requested. The artisan would have been motivated to include these features in the configuration program to avoid developing a final configuration that was defective or inoperative.

7.4 Regarding claims 24-25 and 28-29, Kramer fails to specifically teach that a request can be for a need or a resource. Kramer does, however, teach that the constraints input to the configuration system by the user can be interpreted as such (Kramer; page 370, col 2, para 2). For instance Kramer teaches that a constraint that identifies a software package (need) can also include a constraint for a particular type of processor chip (resource)(Kramer; page 372, col 2, top of page-para 2). It would have been obvious to an artisan of ordinary skill in the configuration arts to interpret these type constraints as a request for a resource or a request for a need based on the discussion and teachings in Kramer.

7.5 Regarding claim 38, Kramer fails to specifically teach determining whether a transfer path exists between available ports. However, Kramer does teach adding a constraint to the elements that indicates a requirement for a port connection (Kramer; page 371, col 2 para 2). It would have been obvious to an artisan of ordinary skill in the configuration arts to know it was a requirement to make compatible connections between parts. The artisan would have been motivated to include these type of constraints to generate a configuration that would be operable with the described

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configuration using the ports available or to provide elements necessary to make inter-element compatible connections within the configured system.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samuel Broda, whose telephone number is (703) 305-1026. The Examiner can normally be reached on Mondays through Fridays from 8:00 AM – 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin Teska, can be reached at (703) 305-9704. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist, whose telephone number is (703) 305-3900.



**SAMUEL BRODA, ESQ.
PRIMARY EXAMINER**